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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,085	08/17/2007	William H. McNamee	118989-06068225	8794
20583	7590	03/17/2009	EXAMINER	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			VALDEZ, DEVE E	
			ART UNIT	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,085	<b>Applicant(s)</b> MCNAMEE ET AL.	
	<b>Examiner</b> DEVE VALDEZ	<b>Art Unit</b> 4151	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/2006</u> .   | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3-6, 8, 11, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph because AO, m, R<sup>2</sup>, R<sup>3</sup>, and R<sup>2</sup> are limitations that are indefinite since they are not in the formula. Also, "is or comprises" is indefinite since it does not specify the exact definition of hydrocarbyl. Furthermore, the C4 to a hydrocarbyl group does not specify the upper limit of the amount of carbon atoms. Claim 1 is further deficient since it fails to identify required formula carrying R substituents.
4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to

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whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 3 recites the broad recitation sugar, and the claim also recites monosaccharide which is the narrower statement of the range/limitation.

5. Claim 4 is rejected under 35 U.S.C. 112, second paragraph,  $R^1$  as being indefinite because the claims do not define what  $R^1$  is.

6. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite because m is not explicitly specified.

7. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite and failure to further narrow limitation of claim 1 because this claim states that  $R^2$  comprises "acyl groups" but claim 1 states the  $R^2$  groups is or comprises "hydrocarbyl group". Applicant needs to distinguish  $R^2$  as an acyl group or a hydrocarbyl group.

8. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite where it states "is or comprises a C4 to hydrocarbyl group" since it does not state the upper limit of the amount of carbon atoms. In addition the term "is or comprises" is indefinite since it is not clear as to what is the exact definition if hydrocarbyl and if the definition is directed to  $R^2$  or  $R^3$ .

9. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite wherein the claim states  $R^2$  groups is an "acyl group-OC" but claim 1 states  $R^2$  groups is

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or comprises a C4 to “hydrocarbyl group”. Applicant needs to distinguish R<sup>2</sup> as an acyl group or a hydrocarbyl group.

10. Regarding the above claims, for purposes of the art rejection below, the material set forth in applicant's example 1 has been used.

11. Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 15 provides for the use of a compound of formula (1) to form an aqueous emulsion or dispersion of polymeric particles, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 15 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Carpenter et al (U.S. Patent Application Publication 2003/0153787, hereafter '787).

Regarding claim 1, '787 teaches a compound of the formula where: the residue of a group having at least m active hydrogen atoms; AO is an alkylene oxide residue; each n is independently from 2 to 200; m is 2-10; and each R<sup>2</sup> is the residue of a group having at least m active hydrogen atoms derived from hydroxyl and/or amino and/or amido groups. R<sup>3</sup> is H, hydrocarbyl, particularly a C<sub>1</sub> to C<sub>22</sub> alkyl or alkenyl. [0004-0013]

15. Regarding claim 2, '787 teaches a compound according to claim 1, wherein the residue of a group where m active hydrogen atoms, wherein m is 2-10. [0009]

16. Regarding claims 3 and 4, '787 teaches a compound according to claim 1, wherein R<sup>1</sup> is the residue of sorbitol, which is a monosaccharide. [0055]

17. Regarding claim 5, '787 teaches a compound according to claim 1, wherein m is 2-10. [0009]

18. Regarding claim 6, '787 teaches at least two of the groups wherein R<sup>13</sup> are long chain acyl groups, and at least one of the long chain acyl groups is a long chain alkenyl or alkyl succinic group which reads on 3-10 acyl groups. [0046]

19. Claims 1, 3, 7-14 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bouvy et al (U.S. Patent 6613817, hereafter '817).

20. Regarding claim 1, '817 teaches a compound of the formula where: the residue of a group having m active hydrogen atoms; AO is an alkylene oxide residue; each n is from 2-30; m is 2-4; and each R<sup>2</sup> is the residue of a group having at least m active hydrogen atoms derived from polyhydroxy hydrocarbyl radical. R<sup>3</sup> is H, hydrocarbyl particularly alkyl group, a hydroxy or hydrocarbyloxy substituted hydrocarbyl. (Column 1, lines 48-50; Column 2, lines 1-5)

21. Regarding claim 3, '817 teaches a compound according to claim 1, wherein the residue of a sugar is a monosaccharide. (Column 2, lines 41-44)

22. Regarding claim 7, '817 teaches a compound according to claim 1, wherein the group R<sup>1</sup> is a polyunsaturated hydrocarbyl group that includes at least 2, particularly 2 or 3, ethylenic bonds. (Column 2, lines 15-17)

23. Regarding claim 8, '817 teaches a compound according to claim 1 wherein R<sup>2</sup> is a polyhydroxy hydrocarbyl radical; and R<sup>3</sup> is hydrogen, a hydrocarbyl, particularly alkyl group, a hydroxyl or hydrocarbyloxy substituted hydrocarbyl, particularly hydroxyl or alkoxy substituted alkyl. (Column 2, lines 3-5)

24. Regarding claim 9, '817 teaches a compound according to claim 1, wherein the hydrocarbyl group comprising 2 to 3 ethylenic double bonds is derived from linoleic acid. (Column 2, lines 15-17)

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25. Regarding claim 10, '817 teaches a compound according to claim 1, wherein the number of double bonds present in hydrocarbyl groups comprising at least two double bonds is in the range from 2 to 3. (Column 2, lines 15-17)

26. Regarding claim 11, the claim is inherent because double bonds must have a range of at least 2 or more. Therefore this claim is inherent. (see '817, col. 2, lines 19-24)

27. Regarding claim 12, '817 teaches linoleic acid having a iodine value in the range from 45g to 75g wherein the inherent properties are inseparable. The courts have held that "a compound and all its properties are mutually inseparable", In re Papesch, 315F.2d 381, 137 USPQ 42, 51 (CCPA 1963). Further, attention is drawn to MPEP 2112.01, which states that "products of identical chemical composition can not have mutually exclusive properties. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

28. Regarding claim 13, '817 teaches a method of forming a compound as defined in claim1 which comprises linoleic acid with alkoxy groups, wherein Iodine absorption would also be considered intrinsic property, since both contain the same alkoxy modification. (Column 2, lines 34-36)

29. Regarding claim 14, '817 teaches a linoleic acid (col. 2, line 22). All linoleic acid compound reads on instant claim.



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30. Regarding claim 22, '817 teaches a paint which comprises: (1) an aqueous or mixed aqueous organic continuous phase ; (2) an alkyd resin emulsion discontinuous phase; (3) at least one compound of formula as defined in claim 1 as an emulsifier; and at least one pigment. (Column 2, lines 7-14)

31. Claims 15-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bouvy et al (U.S. Patent 6780910, hereafter '910)

32. Regarding claim 15, '910 teaches the use of the compound of formula (1) to form an aqueous emulsion or dispersion of polymeric particles. (Column 4, lines 57-67)

33. Regarding claim 16, '910 teaches an aqueous emulsion or dispersion of polymeric particles comprising a compound of formula (1) as defined in claim 1. (Column 4, lines 57-67)

34. Regarding claim 17, '910 teaches an aqueous emulsion or dispersion of polymeric particles according to claim 16 wherein the emulsion or dispersion is formed in the presence of a stabilizing amount of a compound of formula (1).

35. Regarding claim 18, '910 teaches an aqueous emulsion or dispersion of polymeric particles according to claim 16 wherein the polymeric particles comprise an alkyd resin. (See Abstract and Column 1, lines 55-67)

36. Regarding claim 19, '910 teaches an aqueous emulsion or dispersion according to claim 18 wherein the alkyd resin is a resin which is the reaction product of (i) one or more polybasic organic acids or anhydrides, (ii) one or more monobasic fatty acid and one or more polyhydric alcohols. (Column 2, lines 52-60)

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37. Regarding claim 20, '910 teaches an aqueous emulsion of an alkyd resin which includes as an emulsifier a compound of formula (1) as defined in claim 1 in combination with an anionic surfactant, particularly an ether carboxylate, an alkyl aryl sulphonate, a phosphate ester, an alkyl ether sulfate, or a mixture of these surfactants, where the weight ratio of compound(s) of the formula (1) to anionic surfactant is in the range 90:10 to 10:90. (Column 3, lines 11-46)

38. Regarding claim 21, '910 teaches a method of making an aqueous emulsion of an alkyd resin which comprises forming a mixture of the resin and surfactant, including at least one compound of formula as defined in claim 1, including water in the mixture to form a water-in-oil emulsion, and subsequently adding water to the water-in-oil emulsion at least until the emulsion inverts to form an oil disperse phase content of the emulsion to that desired. (Column 5, lines 1-9)

39. Regarding claim 22, '910 teaches polyester resins are well known with wide uses in surface coating such as paints. (Column 1, lines 14-15)

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVE VALDEZ whose telephone number is (571)270-7738. The examiner can normally be reached on Monday to Friday from 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz, can be reached on Monday to Friday from 7:30 am to 5:00 pm.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DEVE VALDEZ/

***/Angela Ortiz/***

***Supervisory Patent Examiner, Art Unit 4151***